

swamp. The first to turn is the smooth sumac (*Rhus glabra*). The mountain sumac (*R. copallina*) usually keeps its rich dark green color much later than the others, and when it does turn, shows more crimson than scarlet. But the poison sumac (*R. vernix*) is the most gorgeous of all, which is a great pity, for the lure of its wonderful leaves causes much suffering to most of those who touch them. Several years ago one of the country churches was elaborately decorated with it. Although a stranger, I told some of the people the bush was dangerous but was met by smiling assurances that I was mistaken, and they kindly pointed to the mountain sumac as the one to avoid. I never heard the results of that decoration, but suppose if any were affected, they attributed their discomfort to some other cause. Of the large trees the sassafras and the various maples claim most attention because of their vivid colors. Some of the swamp maples turn very early, others remain green until October, so the swamps are ablaze in spots for several weeks. The berries of the black alder (*Ilex verticillata*) make the swamps gay after the leaves have fallen. Gathered late in October, and kept in a cool place, not too dry, these berries will remain fresh and brilliant and add much to the beauty of holiday decoration.

Presently trees and shrubs are stripped of "their wealth of gold and crimson" and they compose themselves to rest. Then on a quiet day late in October, when everything seems dead, we come suddenly upon the witch hazels (*Hamamelis virginiana*) in full bloom! The bare branches are covered with curious lemon-scented yellow flowers,—for all the world like tiny wisps of crinkly yellow tissue paper, scattered over a dead bush. The gathering of the branches is attended with some little discomfort, for we cannot avoid touching the ripe capsules, and the seeds fly in every direction, sharply stinging cheeks already tingling from the frosty air.

SHORTER NOTES

PROLIFICATION OF THE FRUIT IN OKRA, HIBISCUS ESCULENTUS.
—Among the various phenomena included by teratologists under

the term "proliferation of the fruit" one of the most interesting is the production of a more or less completely formed second fruit inside the first. Generally, the included fruit is distinctly abnormal in character, often reduced to a whorl, or a series of whorls, of irregularly formed and usually sterile carpels. Sometimes, however, the carpels bear rudimentary ovules. The stigmas, which are developed early in the embryology of the fruit, are generally well formed.

A brief review of the literature of this type of phenomenon has been given elsewhere.* The purpose of the present note is merely to call attention to the occurrence of this type of abnormality in another fairly commonly cultivated plant, the garden okra or gumbo, much prized by the southern cook.

In the fall of 1908, one fruit of a large thick-padded variety of okra† was found to contain a fairly well formed fruit.

In 1909, the seed saved from various 1908 plants was put out so late that the individuals did not reach maturity, although they produced a number of practically matured fruits.

These were dissected with the result that there were found

Normal.....	575
Proliferous.....	37
Total.....	612

The included bodies were in all cases slight or considerably smaller than the one noticed in 1908. They were green in color, with sometimes only imperfectly formed carpels. The stigmas were, however, clearly differentiated in many, if not in most of the cases. The walls had the hairy covering characteristic of the outside carpels.

In all cases, the included "fruit" was produced near the tip of the fruit—at least in the upper half. It was in all cases central in position and cannot in any case observed be considered to occur within a locule. Its origin from a primordium which should

* Harris, J. Arthur, Proliferation of the Fruit on *Capsicum* and *Passiflora*, Ann. Rept. Mo. Bot. Garden 17: 135-145. 1906.

† The commercial seed with which I began an experiment appeared to be decidedly mixed, and I did not retain the varietal name, proposing to separate the various strains by breeding. My material was lost by unfavorable conditions in the next year.

normally develop into an ovule, as is sometimes the case with the included carpellary masses in the red pepper, *Capsicum*, and the passiflora, *Passiflora gracilis*, seems, therefore, to be precluded.

But, on the other hand, I was unable to satisfy myself of the existence of a stalk directly connecting the included fruit with the torus. The axillary region of the fruit is of a spongy nature and very soft in all these specimens. It seemed to form a more or less continuous column from the base of the green proliferation to the torus, but it is difficult to say what is continuation of torus and what is produced by the carpellary margins.

The considerable number of cases observed renders it highly probable that the abnormality will be met in other cultures. If a strain rich enough in the anomaly could be found a thorough morphological investigation would be a profitable task.

J. ARTHUR HARRIS

ON THE IDENTITY OF *POA CROCATA* MICHX.—The type specimen of this grass is in the herbarium of Drake de Castillo in Paris, where I examined it in December, 1911. It is an excellent sheet of five culms and is labeled "Juxta amnes ad Lacus Mistassini defluentes. No. 160." There is also a second sheet with two plants but only one panicle, which is labeled merely "No. 160. *Poa crocata*." A third sheet containing two culms is labeled "Hort. Par.," evidently grown in gardens at Paris. In this the spikelets are slightly larger. The labels are all in Michaux's handwriting. All of the specimens represent *Poa triflora* Gilib. (*Poa serotina* Ehrh.) to which *Poa crocata* was assigned as a synonym by Steudel, and in which he has been generally followed.

C. V. PIPER

TAXONOMY AND OTHER PHASES OF BOTANICAL WORK.*—In connection with the article in the November number of *TORREYA*, by F. J. Seaver, on Ancient and Modern Views Regarding the Relation of Taxonomy to Other Phases of Botanical Work, it may be of sufficient interest to note an opinion expressed on the subject in England about one hundred years previous to

* See *TORREYA* for April and November, 1912.

Dr. M. C. Cooke's paper to which reference is made. It would indicate that comparisons as to the relative merits of various phases of botanical work are not all of recent utterance. Gilbert White, in *The Natural History of Selborne*, in letter XL to the Honourable Daines Barrington, dated June 2, 1778, made passing comment in these words: "The standing objection to botany has always been, that it is a pursuit that amuses the fancy and exercises the memory, without improving the mind or advancing any real knowledge; and where the science is carried no further than a mere systematic classification, the charge is but too true. But the botanist that is desirous of wiping off this aspersion should be by no means content with a list of names; he should study plants philosophically, should investigate the laws of vegetation, should examine the powers and virtues of efficacious herbs, should promote their cultivation; and graft the gardener, the planter, and the husbandman, on the phytologist. Not that system is by any means to be thrown aside; without system the field of nature would be a pathless wilderness; but system should be subservient to, not the main object of, pursuit."

WILBUR L. KING

PROCEEDINGS OF THE CLUB

NOVEMBER 12, 1912

The meeting of November 12, 1912, was held at the American Museum of Natural History at 8:15 P.M. President Burgess presided. Twenty persons were present.

The minutes of the meeting of October 30 were read and approved.

The announced scientific program consisted of an illustrated lecture by Mr. J. J. Levison on "Tree Problems of Our City."

Meeting adjourned.

B. O. DODGE,
Secretary

NOVEMBER 27, 1912

The meeting of November 27, 1912, was held in the laboratory of the New York Botanical Garden at 3:30 P.M. Vice-president Barnhart presided. Ten persons were present.